67. It will be useful and interesting to compare the average prices realised per acre for the coupes sold during the last 8 years, that is, from the time when the contract agency of exploitation of coupes was begun :—

Year.	Area exploited.	Value.	Price per acre.	Average for 8 years.
	Acres.	Rs.	Rs.	
1895-1896 ...	14,854	45,000	3·03	
1896-1897 ...	11,940	56,000	4·69	
1897-1898 ...	3,388	26,870	7·93	
1898-1899 ...	13,445	58,000	4·31	4·70
1899-1900 ...	13,460	50,000	3·76	
1900-1901 ...	11,389	41,501	3·64	
1901-1902 ...	10,833	45,400	4·19	
1902-1903 ...	8,831	53,703	6·08	

Viewed in the light of the rates paid by the railway per 1,000 c.ft. of stacked firewood the above average price indicates an average out-turn of something below 400 cubic feet per acre. The forests are certainly poor in most cases as the result of overcutting in the past, but whether this accounts for the low rates obtained or whether it is that the coupes have been sold too [illegible]ly without reference to their yield and the bulk of the profits has gone [illegible]he pockets of the contractors are questions which further experience [illegible] decide. The greatest difficulty in the way of obtaining better prices has [illegible]ably been the arrangement under which the supply of fuel to the railway has been regulated. The departmental system of working having been proved to be faulty the alternative of holding out for high rates involved the risk of delay of supplying wood to the railway. A middle course which suggests itself of employing contractors to only exploit the coupes and carry the material to the railway would yield a larger profit to the department in that it would obviate loss from under estimate of the contents of the coupes and leave clear royalty to be calculated on the out-turn, but it could be applied to only those coupes which would be worked for the railway, as it does not take into account the disposal of the surplus material and timber which, under present conditions, find their way to the market. It is possible that better prices can be got for the coupes even as they are worked at present if their actual contents are estimated more closely and small contractors are encouraged for single coupes.

68. The values realised on account of the different descriptions of minor produce are stated in appendix I; and the rates of grazing fees charged are also quoted in the same appendix.

CHAPTER V.

MISCELLANEOUS FACTS.

1.—*The forest staff.*

69. The following shows the numerical strength, distribution and rates

of pay of the executive and protective establishment according to ranges.

		Sadhuja.	Ghotki.	Mirpur.	Kashmor.	Abad.	Sukkur.	Kot Sultan.	Total.	Monthly cost.
	Rs.									
Ranger	60	1	...	...	...	...	...	...	1	60
Do.	50	...	...	1	...	...	...	...	1	50
Forester	40	...	...	...	...	...	...	1	1	40
Do.	30	...	...	...	1	1	...	...	2	60
Do.	20	..	1	...	...	...	1	...	2	40
Forest guard	12	1	...	...	1	1	1	1	5	60
Do.	10	3	2	2	1	1	1	1	11	110
Do.	8	3	1	1	...	1	1	...	7	56
Do.	7	13	7	8	11	8	5	4	56	392
Do.	6	3	2	4	1	3	1	2	16	96
Writer guard	12	1	...	...	...	...	...	...	1	12
Do.	10	...	...	...	...	1	...	...	1	10
Do.	8	...	1	1	...	...	...	...	2	16
Orderly peon	8	...	...	...	...	1	...	...	1	8
Do.	7	1	1	1	1	...	1	...	5	35
Do.	6	...	...	...	...	...	...	1	1	6
Depôt and ghat establishment—										
Depôt munshi	12	...	...	...	...	1	...	1	2	24
Ghat do.	12	1	...	...	...	1	...	2	4	48
Do.	10	...	...	...	...	1	...	...	1	10
Forest guard	8	1	...	...	...	3	...	6	10	80
Do.	7	...	...	...	...	3	...	3	6	42
Total ...	...	...	...	...	...	...	...	...	136	1,25[illegible]

Temporary establishment.

Range.	Guards on Rs. 7.	Guards on Rs. 6.	Guards on Rs. 5.	Total.	Monthly cos[illegible]
					Rs.
Sadhuja ...	2	5	2	9	54
Ghotki ...	...	...	...	...	...
Mirpur ...	7	3	2	12	77
Kashmor ...	1	...	...	1	7
Abad ...	7	1	...	8	55
Sukkur ...	4	1	...	5	34
Kot Sultan ...	...	2	...	2	12
Total ...	...	...	...	37	239

In addition to the above, a temporary establishment, costing Rs. 46 per mensem, is employed at the Rahuja nursery in Abad range.

70. Sadhuja range has been recently divided into Sadhuja and Rohri ranges, a forester on Rs. 20 being appointed to the charge of the latter range.

71. Proposals are on foot for re-organising the subordinate establishment so as to improve both pay and prospects, and if these proposals are approved and sanctioned the requirements of the division will be well met.

2.—*Labour supply.*

72. Departmental work is done free of cost by maldars who graze their cattle in the forests. It is doubtful whether there is advantage in an arrangement which places the department under obligation to people on whom it relies for its grazing revenue. The people are considered to be repaid by privileges and concessions granted to them under the grazing rules

(see appendix J), but the demand continues and is met even in bad years when maldars are few. Range officers explain that they would be considered incompetent if they were not able to furnish ample free labour for the work required to be done, and the result is that both forests and grazing revenue suffer.

73. In the Annual Administration Report for 1894, paragraph 94, it is stated that it is an undeniable fact that, owing to collusion with forest subordinates, professional as well as non-professional graziers register about half the number of the animals they possess, and the loss to forest revenue from this form of corruption is therefore considerable. It was then anticipated that the substitution of the contract for the department agency of exploitation of timber and firewood would raise the grazing revenue 30 per cent. In 1894-95 the grazing revenue was nearly Rs. 18,000; in 1895-96 it rose to nearly Rs. 21,000, but since then it has fallen, gradually in some years and rapidly in others, until it stood at not quite Rs. 9,500 in 1901-02 and the reason is obvious. The change from department to contract agency of exploitation of timber and firewood left only the grazing receipts in the hands of the subordinates and, of course, free labour continued to be furnished as was required. Money payment for work done is the surest and most economical way of securing the largest interest to the department and the sooner it replaces the present method of remuneration the sooner will the door be closed which, letting in a little, lets out a great deal more.

74. The coupe contractors have no difficulty in getting labourers for their work. Labanas or Chawans eagerly seek employment moving about from place to place, wherever demand for their labour exists. The daily rate of wage is four annas rising to 8 annas at sowing and harvesting.

PART II.

FUTURE MANAGEMENT DISCUSSED AND PRESCRIBED.

CHAPTER VI.

BASIS OF PROPOSALS.

1.—*Working circles; how composed and reasons for their formation.*

75. The working circle is taken to be the unit of management for both felling and administrative conveniences, and in deciding upon its formation regard has been had to the importance of restricting it to a size compatible with efficient forest conservancy and with having not too large an area under felling at one place. The ideal working circle is an area of about 2,000 acres in one block so that it can be conveniently looked after by one forest guard and in which one coupe shall be located in due rotation. This plan has been followed as closely as possible, but in some instances local conditions have necessitated changes. Forests, such as Jangan, Daho, Islam, etc., standing by themselves, of sufficient size, constitute independent working circles, while large forests have been divided into two, three or more working circles. Muhari Deda and Chanjni forests are too small to be worked by themselves and are therefore joined on to Kadrapur and Kutta forests, respectively. For description of working circles, see appendix D.

2.—*Compartments: justification of the sub-division adopted.*

76. The forests are sub-divided on a plan of squares or compartments of 160 acres and less in area by cross parallel lines cleared through the forests at right angles to each other. The squares are merely conventional sub-divisions adopted for the convenience of the inspection of the forests and the extraction of the produce and serve no scientific purpose as regards a differentiation of the crops. It is proposed to indicate them on the ground as well as on the map by a notation of letters and numerals combined; letters to denote series or rows of compartments and numerals, numbers in the series.